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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/692,827	10/24/2003	Baiyi Zhao	2002B130A/2	9211

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EXAMINER

PASTERCZYK, JAMES W

ART UNIT PAPER NUMBER

1755

DATE MAILED: 11/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/692,827

Applicant(s)

ZHAO ET AL.

Examiner

J. Pasterczyk

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) 21-27 and 32-35 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 and 28-31 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-35 are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. ____   |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>6/16/04, 1/31/05</u>  | 6) <input type="checkbox"/> Other: ____                                     |

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1. Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-20 and 28-31, drawn to a catalyst composition, classified in class 502, subclass 117.
- II. Claims 21-26 and 32-35, drawn to a polymerization process, classified in class 526, subclass 161 and 171 inter alia.
- III. Claim 27, drawn to a compound, classified in class 556, subclass 21.

2. The inventions are distinct, each from the other because:

Inventions I and II are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case the process for using the product as claimed can be practiced with another materially different product, such as a metallocene or chromium oxide catalyst.

Inventions III and I are related as mutually exclusive species in an intermediate-final product relationship. Distinctness is proven for claims in this relationship if the intermediate product is useful to make other than the final product (MPEP § 806.04(b), 3rd paragraph), and the species are patentably distinct (MPEP § 806.04(h)). In the instant case, the intermediate product is deemed to be useful as a pigment for UV-visible light filters, and the inventions are deemed patentably distinct since there is nothing on this record to show them to be obvious variants. Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the

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examiner finds one of the inventions anticipated by the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

Inventions II and III are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions have different functions, the former to produce polyolefins, the latter to filter UV-visible light.

3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

4. During a telephone conversation with Catherine Bell, Esq., on 11/16/05, a provisional election was made with traverse to prosecute the invention of group I, claims 1-20 and 28-31. Affirmation of this election must be made by applicant in replying to this Office action. Claims 21-27 and 32-35 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

5. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

6. The abstract is objected to because it is no longer drawn to the elected invention and lacks any detail of the nature of the claimed catalyst composition.

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7. Claims 1-20 and 28-31 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Where applicant acts as his or her own lexicographer to specifically define a term of a claim contrary to its ordinary meaning, the written description must clearly redefine the claim term and set forth the uncommon definition so as to put one reasonably skilled in the art on notice that the applicant intended to so redefine that claim term. *Process Control Corp. v. HydReclaim Corp.*, 190 F.3d 1350, 1357, 52 USPQ2d 1029, 1033 (Fed. Cir. 1999). The term “Y” in claims 1, 2, 17-19 and 28-31 is used by the claims to mean “hydrocarbyl bridge”, while the accepted meaning is “yttrium.” The term is indefinite because the specification does not clearly redefine the term.

In claim 2, all of the “wherein” clause is merely repetitive of what is already defined in claim 1 and thus fails to further limit the claim.

In claims 5-8, second line of each, claim 18 first line, claims 28, 29 and 30 first line of (iv), delete “selected from” since it this is only a fragment of proper closed Markush language.

Further in claims 7 and 12, insert --or-- between the last two members of the Markush group.

In claim 8 change the “and” to --or--.

In claim 9 delete the comma at the end of l. 2 and insert --or-- before “hydrocarbyl”.

In claim 10 insert --to each other-- after “connected”.

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In claim 13 the alkoxy and amino groups are not consistent with the metalloids required by claim 9, insert --or-- between the last two members of the Markush group, and change the final comma to a period.

Claim 15 does not limit claim 1 or 2 since all the metals recited are all there are for groups 8-10.

In claims 15-18, after “selected from” in l. 1 insert --the group consisting of--.

In claim 19, part (a) delete the comma; in part (b), A being a non-hydrocarbon functional group is inconsistent with the recitation of claims 1 and 17 and hence lacks antecedent basis, and the definition of E in (c) is inconsistent with claim 17.

In claim 20 the definitions of A are inconsistent with claims 1 and 17, delete “selected from” in l. 1, and in l. 2 change “and” to --or-- and subscript the coefficients.

In claim 28, (i), change “and” to --or--; the definitions of (ii) and (iii) are inherent and thus should be cancelled as prolix; in (iv) delete “selected from” in the first line and in its last line insert --or-- between the last two members of the Markush group.

In claim 29, in (i) delete “from” and change “and” to --or--; the definitions for (ii) and (iii) are inherent; in (iv) delete “selected from” in l. 1 and in the last line insert --or-- between the last two members of the Markush group; in (vi) insert --to each other-- after “connected”.

In claim 30, in (i) delete “from” and change “and” to --or--; the definitions in (ii) and (iii) are inherent; in (iv), first line delete “selected from” and in the last line insert --or-- before “cyclododecyl”; in (v) first line delete “selected from” and in the penultimate line change “and” to --or--; in (vi) insert --to each other-- in the penultimate line.

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In claim 31, the definitions of (ii) and (iii) are inherent and thus should be cancelled as prolix; in (iv) delete the repetition of the R groups; in the definition of R' delete the comma; in the definition of y change the comma to a semicolon; in the penultimate line insert --to each other-- for clarity.

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 1-20 and 28-31 are rejected under 35 U.S.C. 102(b) as being anticipated by Buchwald et al., USP 6,307,087 (hereafter referred to as Buchwald).

Buchwald discloses the invention as claimed when one considers the bases disclosed therein as the cocatalysts since the specific cocatalysts of the present specification are not claimed (col. 7, l. 5-45; col. 7, l. 1-44; col. 25, l. 62; col. 31, l. 40 to col. 32, l. 32; col. 33, l. 56 to col. 34, l. 16; col. 41, l. 17; col. 50, l. 8; col. 65, l. 45; col. 66, l. 10).

11. Claims 1-20 and 28-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sumi et al., USP 6,323,353 (hereafter referred to as Sumi) in view of either of Brookhart et al., USP 6,710,007 (hereafter referred to as Brookhart) or JP-09-255713 (hereafter referred to as Yorisue).

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Sumi discloses the invention substantially as claimed (abstract; col. 2, l. 60; col. 3, l. 1-50; col. 4, l. 5, l. 50; col. 10, l. 20; col. 11, l. 55; col. 12, l. 20; col. 13, l. 35; col. 14, l. 50; col. 16, l. 66 to col. 17, l. 67; claims 1, 2, 21).

Sumi lacks disclosure of the cocatalysts of the present specification in its catalyst composition.

However, Brookhart teaches that in catalysts having a similar structure and transition metal of Sumi used for olefin polymerization, the use of organoaluminum compounds is conventional (col. 7, l. 24-29; col. 8, l. 34-39; col. 10, l. 32-37; col. 29, l. 1-37; col. 44, l. 31-53). Yorisue has a similar teaching (entire abstract).

It would have been obvious to one of ordinary skill in the art to apply the teachings of either of Brookhart or Yorisue to the disclosure of Sumi with a reasonable expectation of obtaining a highly-useful olefin polymerization catalyst with the expected benefit of being able to use a new class of transition metal compound as the catalyst.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to J. Pasterczyk whose telephone number is 571-272-1375. The examiner can normally be reached on M-F from 9 to 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo, can be reached at 571-272-1233. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished



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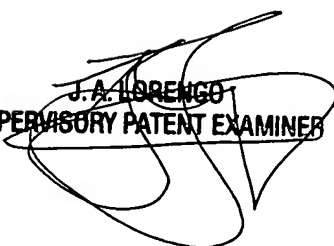
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11/21/05



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